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(54) **Putrescine N-methyltransferase, recombinant DNA molecules encoding putrescine N-methyltransferase, and transgenic tobacco plants with altered nicotine content.**

(57) There is provided highly purified tobacco putrescine N-methyltransferase, a process for its purification, and production of PMT DNA sequence. The purification process includes the step of applying a tobacco root extract to an anion exchange medium and specifically eluting putrescine N-methyltransferase with an elution buffer comprising putrescine.

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
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Y	* abstract * & PLANT CELL PHYSIOL. vol. 12, no. 4, 1971, pages 633 - 640; ---	15-23	
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16 SEPTEMBER 1992	Examiner MADDOX A. D.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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A	CHEMICAL ABSTRACTS, vol. 106, 1987, Columbus, Ohio, US; abstract no. 99481, WAGNER, R., ET AL.: 'The regulation of enzyme activities of the nicotine pathway in tobacco' * abstract * & PHYSIOL. PLANT, vol. 68, no. 4, 1986, pages 667 - 672; ---	1-23	
A	THE PLANT CELL, vol. 2, no. 1, January 1990, ROCKVILLE, MD, USA, pages 7 - 18; LAGRIMINI, L.M., ET AL.: 'Peoxidase-induced wilting in transgenic tobacco plants' * page 16, left column, last paragraph * -----	15,16, 18,20-22	
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